H
0622/00-12
1930
C.1

GOVERNMENT OF THE PROVINCE OF SASKATCHEWAN
DEPARTMENT OF AGRICULTURE

Leaflet No. 91

GRASSHOPPER CONTROL BY PROPER SUMMERFALLOWING

Proper summerfallowing is of the greatest importance in controlling grasshopper outbreaks. It does not add to the cost of tillage, is simple and greatly lessens the cost of labour for grasshopper control. The necessary steps are possible with any of the usual methods of summerfallowing and with such implements as are available. On lightly infested fields two hundred thousand or more hoppers can develop on every acre of stubble land and, if not destroyed they are sure to cause much trouble and loss sooner or later. Even where eggs are laid mainly in sod, summerfallow fields become generally infested by early migration from adjacent roadsides, slough margins, etc. Proper summerfallowing and the use of poison bait are of the greatest importance for thoroughly controlling grasshoppers. Neglect of such control measures on land being summerfallowed is the cause of a great deal of the damage to crops during the summer and fall.

The practices outlined should be adopted permanently as the standard method of summerfallowing where grasshopper outbreaks occur in Saskatchewan, and especially in the open prairie sections. Then, when outbreaks do occur, no change in farm practice is necessary and the methods used will undoubtedly go far towards taking care of the lighter infestations and greatly reducing the risk of severe outbreaks.

In all parts of the outbreak area, whether the infestation is light or heavy, two things are essential for satisfactory control of grasshoppers under Saskatchewan conditions:

1. SUMMERFALLOW ALL UNSEEDED STUBBLE IN A WAY TO CONCENTRATE THE HOPPERS FOR POISONING. THIS MUST BE DONE BEFORE THEY MOVE TO NEARBY CROPS.
2. USE POISON BAIT IN THE MOST EFFICIENT WAY.

(Over)

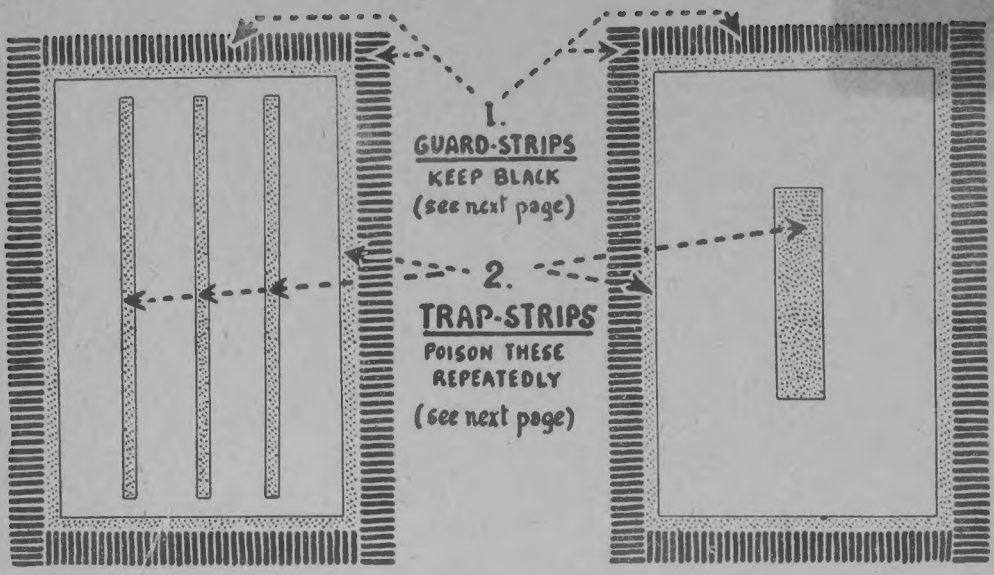

Figure "A" Figure "B"

DIAGRAM OF FIELD TO BE SUMMERFALLOWED

Illustrating essential features of how the plan for preventing migration of hoppers from summerfallow to crop may be worked out. Figure "A" illustrates a field worked in lands. Figure "B" illustrates a field worked around and around, beginning at the outside.

ESSENTIAL FEATURES

1. **Guard Strips**—at least 4 rods wide and preferably plowed, should be made around the whole field before hoppers hatch; they should be kept black until the hoppers are poisoned. The purpose is to delay hopper movement from the summerfallow, thus allowing time for the other necessary steps.

2. Trap Strips—of volunteer growth or early sown grain must be provided for hoppers to gather in as the remainder of the field is being worked; otherwise the destruction of their food will force the hoppers off the summerfallow into nearby crops before they can be poisoned. The most important trap strip is that around the outside of the field just inside the guard strip. A central trap strip should also be left, and in large fields other trap strips are advisable about every 30 rods. Trap strips should be at least 2 rods wide, because narrow strips may become so crowded that the hoppers will bolt. Trap strips may be worked down after the hoppers have been poisoned.

3. **Poison Bait**—should be spread in the trap strips as soon as grasshoppers become numerous in them and repeated as often as necessary. Under this plan baiting is used on only five to ten per cent. of the whole summerfallow field, but the hoppers are thereby destroyed before they spread over the whole district.

Printed by direction of the
HON. J. G. TAGGART, Minister of Agriculture.
Provincial and Dominion Departments of Agriculture co-operating.